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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,785	09/11/2006	Atilla Uz	PHDL0860-010	1351

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EXAMINER

CORMIER, DAVID G

ART UNIT	PAPER NUMBER
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1711

NOTIFICATION DATE	DELIVERY MODE
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09/29/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/598,785	Applicant(s) UZ ET AL.	
	Examiner DAVID CORMIER	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 7-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09112006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 1 and 7-11, in the reply filed on July 30, 2010 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. In reconsideration of the restriction requirement mailed on February 1, 2010, the *species restriction* is withdrawn, and claims 7, 8, 10, and 11 will also be examined.

Claim Objections

3. Claims 7, 12, and 17 are objected to because of the following informalities: it appears that the phrase "with the start-up...to the operating position" should be set apart by commas for clarity.
4. Claims 12-16 are objected to because of the following informalities: it appears that the phrase "providing a dishwasher (1) according to claim 9" should be set apart by commas for clarity. This phrase also appears to be redundant unless this is a step of the control method.
5. Claims 9-11 are objected to because the phrase "a control method for comprising the steps of" appears to mean something else, such as "a control method comprising the steps of.
6. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1 and 7-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 recites the limitation "the network." There is insufficient antecedent basis for this limitation in the claim. Furthermore, it is unclear from the specification, exactly what "the network" refers to.

10. Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

11. Claims 7, 12, and 17 are indefinite because the phrase "if no success is obtained" is unclear. It is unclear what would qualify as a "success" because a condition for success is not defined.

12. Regarding Claims 8, 13, and 18, it is unclear what the scope of "washing water [that is] not suitable" would be.

13. Further regarding Claims 8, 13 and 18, the phrase "gradually increasing current (I) exceeds a certain limit current value (I_{max})" is not understood. It appears to be missing some language. Furthermore, it is unclear if this is a manipulative step where something is increasing the current or if this step is related to the "tracing the change of current."

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14. Further regarding Claims 8, 13, and 18, there are steps performed upon meeting the condition of "after it is decided that the viscosity of the washing water is increased," but nowhere in the claim is it "decided that the viscosity of the washing water is increased"; rather it appears that it can be decided that washing water is not suitable is related to the increase, but it is not exactly clear what viscosity change constitutes a not suitable water.

15. Further regarding Claims 8, 13, and 18, the phrase "taking clean water" is unclear. It is unclear if, for example, clean water is taken out of the apparatus, into the apparatus or something else entirely.

16. Claims 8, 13 and 18 recites the limitation "the variation of the current." There is insufficient antecedent basis for this limitation in the claim. It is not exactly clear if this refers to the step of "gradually increasing current (I) exceeds a certain limit current value (I_{max})."

17. Regarding Claims 9 and 14, it is unclear what would constitute a "proper" range.

18. Regarding Claims 10, 15, and 19, the phrase "detecting that the current (I) drawn by the circulation pump (4) from the network fluctuates within an interval gradually decreasing or increasing" is indefinite because it is unclear if the current gradually decreases or increases, or if the interval is gradually decreasing or increasing.

19. Further regarding Claim 10, 15, and 19, it is unclear what it means for the "current fluctuations" to be lowered. It is unclear if the amplitude of the current waveform is lowered or the average current is being lowered.

20. Claims 10, 15, and 19 recites the limitation "the foam." There is insufficient antecedent basis for this limitation in the claim.

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21. Regarding claims 11, 16, and 20, the phrase "detecting a decreasing change of the current (I) drawn by the circulation pump" is indefinite because it is unclear what is a decreasing change of current. It is unclear if the change in current is a change in current from some nominal current, waveform amplitude, average dc current, slope, or some other quantity.
22. Regarding claims 11, 16, and 20, it is unclear what current would be a normal current.
23. Regarding Claims 12-16, it is unclear which parts of the claims are the preamble and which parts are the manipulative steps.
24. It is impossible to determine the scope of the claims as written; they will be examined as best as they are understood.

Claim Rejections - 35 USC § 102

25. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 26. As best as they are understood, Claims 1, 9-11, 14-16, 19, 20 are rejected under 35 U.S.C. 102(a and e) as being anticipated by Bashark (US 2005/0005952).**

27. Bashark discloses a dishwasher comprising a wash tub (10) in which the dishes to be washed is placed, a sump (11) which is in the lower section of the wash tub, where the water present in the wash tub is collected during washing operation, a circulation pump (12), driven by

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an electric motor with variable rpm, turning the water in the sump back to the wash tub, a drain pump (16) which drains the water collected in the sump at the end of the washing operation out of the dishwasher and a filter (14) preventing the dirt from getting into the circulation during washing and thus decreasing the effectiveness of washing, characterized by a control card, tracing the change of the current drawn by the circulation pump from the network (the control card is taken to be the controller 25 in combination with sensor circuit 50; Figures 3-8 show different embodiments of the sensor circuit).

28. The phrase “determines the effects such as...rotation of the circulation pump” is considered to be intended use of the apparatus. The claimed intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art.

29. Bashark broadly and reasonably teaches Claims 9 and 14. Bashark teaches detecting current drawn by the circulation pump from the network fluctuates in a proper range (note the breadth of this phrasing; Bashark teaches that the current from the pump is detected at paragraph 22), taking some water into the sump (reads on any of the liquid fill steps; see paragraphs 25-28), lowering the rpm of the circulation pump and continuing with the washing operation (reads on deactivating circulation pump and reactivating it in a subsequent sub fill cycle; see paragraph 28). Similarly for Claims 10, 15 and 19, Bashark teaches detecting current drawn by the circulation pump from the network fluctuates within an interval gradually decreasing (note the breadth of this phrasing; Bashark teaches that the current from the pump is detected at paragraph 22), decreasing the rpm of the circulation pump until the current fluctuations are lowered to a preset level (reads on deactivating circulation pump and reactivating it in a subsequent sub fill

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cycle; see paragraph 28). Similarly, for Claims 11, 16, and 20, Bashark discloses detecting a decreasing change drawn by the circulation pump from the network with respect to nominal current (note the breadth of this phrasing; Bashark teaches that the current from the pump is detected at paragraph 22), taking some water into the dishwasher sump (reads on any of the liquid fill steps; see paragraphs 25-28), and lowering the rpm of the pump and continuing with the normal washing operation level (reads on deactivating circulation pump and reactivating it in a subsequent sub fill cycle; see paragraph 28). The phrase “if it is determined...and draining the water of Claims 11, 16, and 20 is conditional and is not given patentable weight because it is not necessary for anticipation (note Bashark does not disclose a condition where the current does not return to normal). Further note for these claims that these steps can be used on all wash or rinse circulation sub-cycles (paragraph 28).

Claim Rejections - 35 USC § 103

30. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

31. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

32. As best as they are understood, Claims 7, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bashark (US 2005/0005952) in view of Strocchio (EP 0 838 192; cited by Applicant).

33. Bashark is relied upon as above.

34. Bashark does not expressly disclose the steps of: with the start up current enabling the circulation pump to shift from inoperative position to the operating position, making start up attempts of a previously specified number in the positive rotation direction and making n start up attempts in the positive rotation directing by increasing the torque with a current higher than the start up current, if no success is achieved, making n start up attempts in the negative rotation direction with the start up current and making n start up attempts in the negative rotation direction with the start up current and making n start up attempts in the negative rotation direction by increasing the torque with a current higher than the start up current.

35. Strocchio discloses a dishwasher control method that detects a current to the pump motor, if a maximum absorption (of current) occurs indicating a jammed motor (col. 1, lines 46-68; col. 3, lines 4-57), a prealarm phase is initiated in which up to 10 attempts are made to drive the motor before an alarm condition is raised (col. 3, lines 34-39). In between the attempts, the motor can be reversed to facilitate release of the jam (col. 3, lines 40-47).

36. Because it is known in the art to monitor a pump motor for a current maximum and in response, attempt to drive the motor in a forward and reverse direction, and the results of the modification would be predictable, namely, an effective means of releasing a jam, it would have

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been obvious to one of ordinary skill in the art at the time of the invention to have n start up attempts in a positive direction and n start up attempts in a reverse direction upon detection of a large current. Note that n start up attempts could be 0 or 1 start up attempt. Further note that it is implied that a higher torque with a higher current would be used because the motor is jammed; nevertheless, one of skill in the art would recognize that if the pump is jammed increasing the torque and current could facilitate removal of the jam.

37. As best as they are understood, Claims 8, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bashark (US 2005/0005952) in view of Schob (US 2003/0103852), and further in view of Hegeman et al. (US 2003/0019510; cited by Applicant).

38. Bashark is relied upon as above.

39. Bashark does not expressly disclose a control method for deciding that the washing water is not suitable comprising the steps of gradually increasing current exceeds a certain limit current value letting the circulation pump continue its operation at low rpm after it is decided that the viscosity of the washing water is increased, draining the washing water and taking clean water if it is decided that the washing water is not suitable according to the variation of the current amount.

40. Schob discloses a dispensing apparatus having a rotary pump (3) driven by a motor (paragraph 49). The motor current is directly a measure of the torque of the rotor (31) driven by the motor (paragraph 49). There is a direct connection between the motor current with which the pump is driven and the viscosity of the fluid (paragraph 52).

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41. Hegeman discloses a dishwasher which uses a turbidity sensor (200) for measuring a soil level in the water (paragraph 28), if the sensor output decreases, the water is pumped out of the dishwasher and a second fill operation is performed (paragraph 30). If the output signal from the sensor decreases rapidly during circulation, heavy soil is present and a corrective action of draining and pumping water onto the filter can be initiated (paragraph 31-32).

42. Because it is known in the art to drain washing water and adding new water when excess soil present, as taught by Hegeman, and that one way of detecting an increased viscosity (or unsuitable water; note that one of skill in the art would recognize that viscosity would be positively related to amount of soil) would be to monitor an increase in a torque of a motor, and the results of the modification would be predictable, namely, an effective means of discarding excessively dirty water, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a control method for deciding that the washing water is not suitable comprising the steps of gradually increasing current exceeds a certain limit current value letting the circulation pump continue its operation at low rpm after it is decided that the viscosity of the washing water is increased, draining the washing water and taking clean water if it is decided that the washing water is not suitable according to the variation of the current amount.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CORMIER whose telephone number is (571) 270-7386. The examiner can normally be reached on Monday - Thursday 8:30 - 6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit
1711

/DGC/
David Cormier
09/23/2010